

**Influence of adolescent pregnancy on maternal health care services.
Does it vary between rural and urban areas?**

Teenage pregnancy coming up as one of the most important social and public health problem all over the world. In developing countries, particularly South Asian countries, a large proportion of girls get married and give birth at very young ages. In India, though legal age at marriage is 21, a considerable proportion of girls get married at very young ages. Pregnancy during adolescence poses mother at a high risk to many health related complications, which is the main cause for maternal, infant morbidity and mortality. It is also evident from the earlier studies that utilization of maternal health care services was low among adolescent women as compared to older women. In addition to physiological immaturity, the low tendency to use the maternal health care services make adolescent women more vulnerable to maternal morbidity and mortality and newborn to the risk of infant morbidity and mortality. Further, studies on these directions focussed mostly on developed countries, but it is important to focus on developing countries where the early marriage and early pregnancy are common on the one hand and utilization of maternal health care services is low on the other hand.

Until recently, little effort was made to study the influence of age at birth of women on utilizing the maternal health care services. Many studies in the past dealt with the maternal health care utilization, but less attention was paid on the effect of age of women on use of health care services. Most of the studies conducted so far are based on clinical records, which would not represent the population as a whole. Under these circumstances, it is necessary to study at the community level in developing country settings. Various studies have shown that adolescent marriages as well as utilization of maternal health care services were influenced by different socioeconomic, demographic and other background characteristics of women. Therefore there is a need to examine the net influence of age of women at birth on the utilization of maternal health care services controlling for other factors. Early marriage and early pregnancies are common among rural residents and accessibility and availability of maternal health care services is different in rural and urban settings. Therefore, it was decided to study the effect of age at birth of women on the use of maternal health care services in rural and urban areas separately.

Materials and Methods

Analyses were based on cross-sectional data from the National Family Health Survey-3, India. Information for the present study was used from the women's questionnaire, in which women of reproductive age (15-49) were asked detailed information on their reproductive history for the births in the last five years as well as on other background characteristics of women. The present study used the information on utilization of prenatal health care services and place of delivery. In the present study teenage pregnancy was defined as pregnancy occurred during the ages 19 or below in the five years preceding the survey.

Other variables included in the analyses were: women's education (illiterates or literates), domestic violence (experienced no violence, experienced less severe violence, experienced severe violence and experienced sexual violence), work participation of women (non-working and working), female autonomy (decision mainly by respondent, respondent with others, respondent not involved), birth order of women (birth order number 1,2,3 and above), wealth index as a proxy for socioeconomic status (very low, low, medium, high and very high), exposure to mass media (no and yes) and intended pregnancy (no and yes). Recommended antenatal care was defined as the percentage of live births in the preceding five years of the survey received the following services during pregnancy: three or more prenatal visits, two or more tetanus toxoid injections and iron and folic acid tablets or syrup for three or more months.

Analyses

At first, the percent distribution of utilization of recommended prenatal care services and place of delivery for adolescent and adult women by their place of residence was obtained. Since the dependant variable is dichotomous, logistic regression technique was used to study the net influence of age of women at birth on the utilization of recommended antenatal care. In order to see the effect of age of women on place of delivery, multinomial regression was used. Multivariate analyses were performed for urban and rural areas separately.

Results

Bivariate analyses clearly showed that teenage pregnancies were associated with decreased tendency to use recommended natenatal care as well as institutional delivery. After controlling for other factors, multivariate results also showed that adolescent women were at the disadvantageous side in utilizing the recommended prenatal care services as well as utilizing the private health facility for delivery in both rural and urban areas.